



expanding the narrative for a rapidly changing world

Lifelong-Lifewide Learning for Employability and Sustainable Regenerative Futures: An Integrating Perspective - An Ecological Narrative Norman Jackson

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Norman Jackson



100 year learning lives

The whole of life is learning therefore education can have no ending
Eduard Lindeman (1926)

slides & narrative
<https://www.lifewideeducation.uk/ou-employability.html>

1 It's a pleasure and honour to be given this opportunity to make a contribution to your conference which is trying to develop new narratives around employability in and for a rapidly changing world.

I'm not a scholar of employability so I approach the task of offering what I am calling an ecological narrative with great humility. My educational interest, for many years, has been in the holistic development of people through

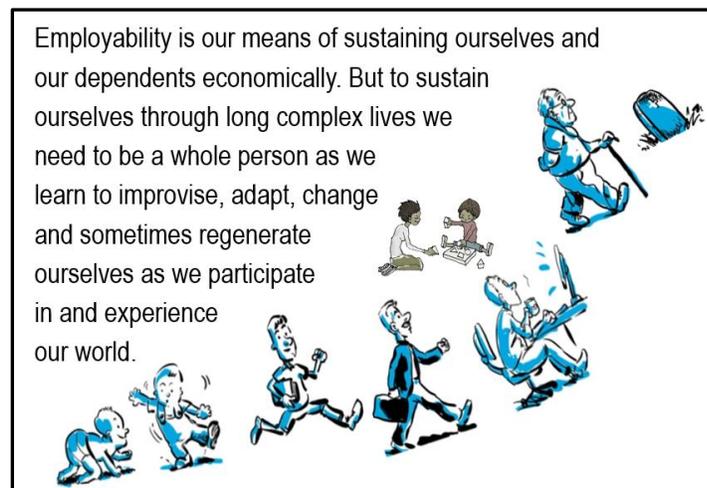
all the experiences their life affords and I embrace the philosophy of John Dewey and Eduard Lindeman that the whole of life is learning and education can have no ending. I will be trying to integrate these ideas into my narrative for employability.

Today's children are likely to live well into the next century and the education they receive today must provide the foundation for 100 years or more of learning to adapt to a world that is in continuous and rapid formation: a world that will be profoundly different to the world we know today. How we prepare people for long complex learning lives in a world in continuous formation, is the core challenge for educational policy makers and practitioners who are concerned about the distant rather than the near future.

I believe that we have reached a point in our evolutionary history where the moral purpose of education "to make a positive difference to people, to enable them to develop the potential they have to lead fulfilled and productive lives", needs to be broadened to encompass, making a positive difference to the health and vitality of the planet that sustains all life. What I am saying is consistent with this belief.

I will not be arguing for the abandonment of current efforts and strategies to prepare higher education learners for the world of work. Rather, I will be arguing for more expansive notions of human development, greater integration of concepts for learning and practice founded on an ecological world view, and acceptance of the responsibility we have for preparing young people for more distant futures and active participation in a world that they will need to recreate in order to have a future.

2 “All definitions of employability come down to an individual’s (perceived or realised) ability to obtain and maintain employment throughout his/her career”^{1, p2589} whether that means working for working for oneself or for others. It is a concept of human development for sustainability.

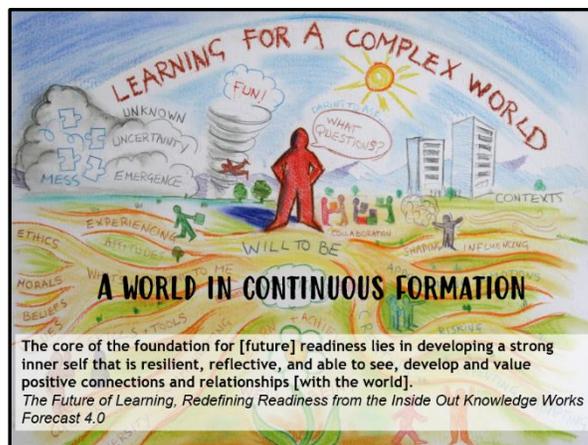


The different perspectives offered on employability are concerned with particular qualities, skills, attitudes and orientations to engaging with and creating opportunities that enable people to gain employment and to continue to be employed. Employability is a difficult concept because there are many opinions, perspectives and nuances on what being employed actually means in a particular field or context.

When viewed at the scale of a whole life, employability is our means of sustaining ourselves and our dependents economically. Whatever it is that makes us employable is woven into the fabric of our everyday life as part of a complex evolving mix of imagination, understandings, skills, attitudes, values and beliefs. But a life is a complex thing and ultimately, it is us as a whole person that enables us to sustain ourselves as we learn, to improvise, adapt, change and sometimes regenerate ourselves as we participate in and experience our changing world and circumstances. While in education, we might characterise work and employability as something discrete, in our life it is fully integrated into who we are and who we want to become. There is a strong educational argument for developing learners as whole people, not just educated employable people, and that will be reflected in the narrative I construct.

A world in continuous formation

3 Employability, like life, is contextual – its actual meaning is derived from performing a role in a particular environment and set of contexts, but we often treat employability as if context has nothing to do with it. I want to try to develop what I am calling an ecological narrative in the context of a rapidly changing world in which notions of sustainability and regeneration will, slowly but surely become the dominant discourse for education, lifelong and lifewide learning and human development more broadly, including employability.



We drew this picture on the wall of the SCEPTRe Centre at the University of Surrey in 2006. It symbolically represents the dynamic, turbulent and complex environments we are immersed in everyday. Another way of expressing the idea of complexity that is constantly emerging through social, political, technical and economic interaction is a world in formation in which everything is forming and we are participating in its formation, at the same time we are also continuously forming through our interactions with the world.

Enabling learners to prepare themselves for a lifetime of learning and becoming in a world that is continually forming is the fundamental challenge facing educators and educational institutions all over the world. It has all the qualities of a wicked problem in so far as its difficult or impossible to solve because of incomplete, contradictory, and changing requirements that are often difficult to recognize. There are no right and wrong answers only many possibilities and all the stakeholders might have a different answer, it's a problem that engages the whole system from bottom to top.

This quotation from a foresight report gets close to what I want to talk about -

*The core of the foundation for [future] readiness lies in developing a strong inner self that is resilient, reflective, and able to see, develop and value positive connections and relationships [with the world].*¹¹

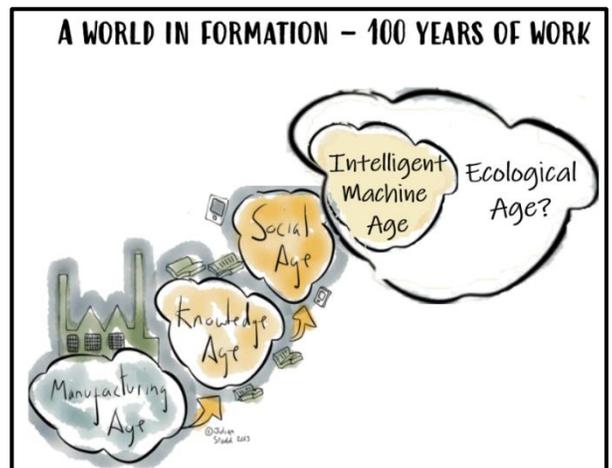
It speaks to the development of a whole thinking, feeling acting person who can sustain and, when necessary, regenerate themselves, who is self-aware and able to act upon the affordances in the world around them. This is an ecological concept of human development which recognises that we cannot separate ourselves from our relationships, involvement and actions in the world.

Anthropologist Tim Ingold gets it right when he says “organism plus environment’ should denote not a compound of two things, but one indivisible totality.”² It’s this indivisible totality that provides us with the foundation for viewing learning and all social practice, including education and work, as ecological phenomenon which is the core theme I want to develop.

Three perspectives on work in a world in continuous formation.

ONE

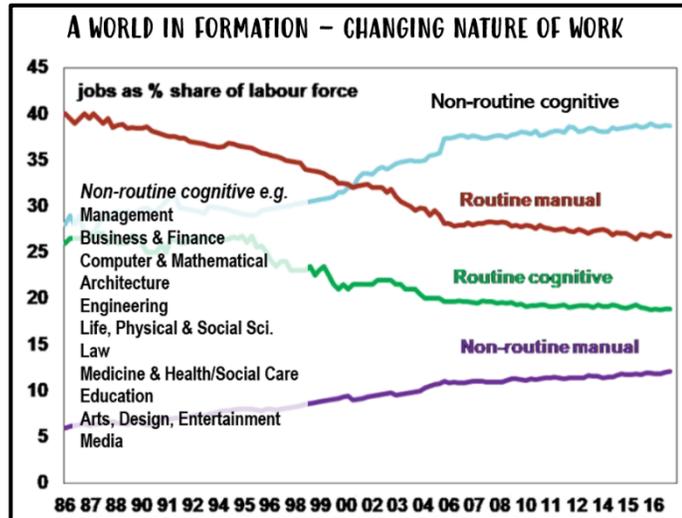
4 A world in formation is an apt metaphor for the fluidity and turbulence of the world of work. In my lifetime I have witnessed massive changes in the evolution of work. As we have emerged from a long industrial/ manufacturing age, into the information and knowledge age, and more recently the social age as social media technologies have been universally adopted. Ahead of us we are facing our greatest challenge as we enter the ‘intelligent machine age’.. We are already living alongside machines but machines and associated AI will become increasingly



important to the point where humans themselves may become part machines within the lives of our students. The question I want to pose in my talk is do we also have to transition to an Ecological Age in order to survive as a species.

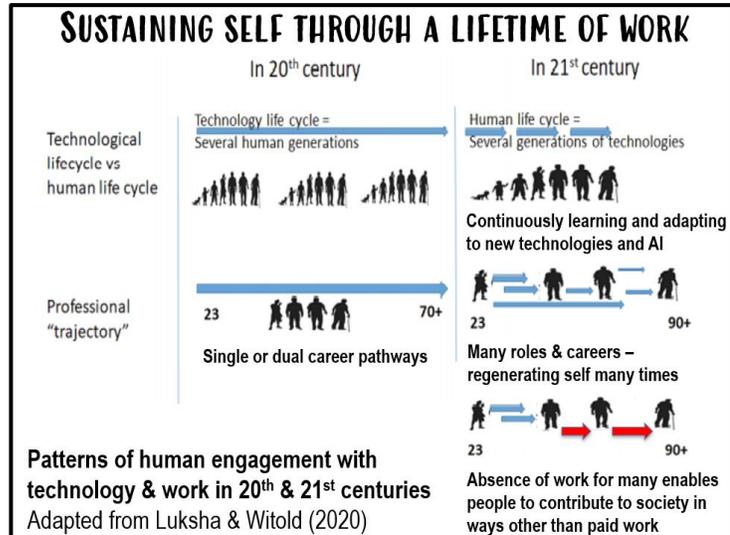
TWO

5 The good news for HE students is that the one of the two growth areas in the long term trends for work is in what is termed cognitive non-routine activities. By both design and default HE develop people to think with complexity and such ways of thinking are necessary in work that isn't predictable that requires people to work with uncertainty and interact in an intelligent, self aware and creative way with their environment and the problems it contains. It is this non-routine cognitive domain where I think the idea of ecologies for learning and practice has most relevance and value.



THREE

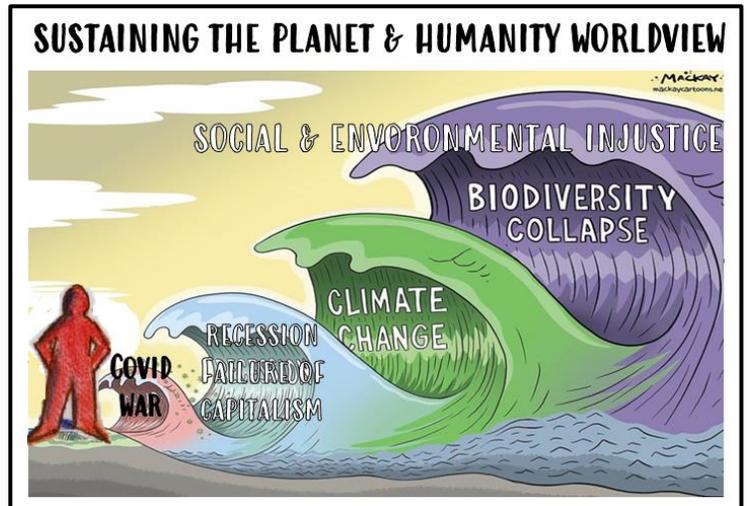
6. There is an underlying assumption that by equipping students with the knowledge and skills to perform in the present they will automatically be able to adapt to and cope with new situations in the future. But for the first time in human history we are approaching a future that will be fundamentally different from our present. According to futurist commentators like Daniel Susskind³ and Pavel Luksha⁴ the pathway to the future involves increasingly rapid introductions of new technologies, ever expanding information flows, decreasing shelf-life of knowledge, more automation and less work for most people. People will increasingly need to co-exist with intelligent machines and AI and humans themselves are likely to be part machines and incorporate AI posing profound questions on what it means to be human and profound questions for how we equip young people today to undertake this journey.



What will employability mean when large parts of a population will not have access to employment in the ways which we understand? We had a foretaste of this scenario with the furlough scheme during covid lockdowns, although at that time people were highly restricted in what they could do. A world with less work speaks to developing people as whole persons able to access affordances which give them meaning and purpose, across the whole of their lives, not just work.

But is the world itself sustainable?

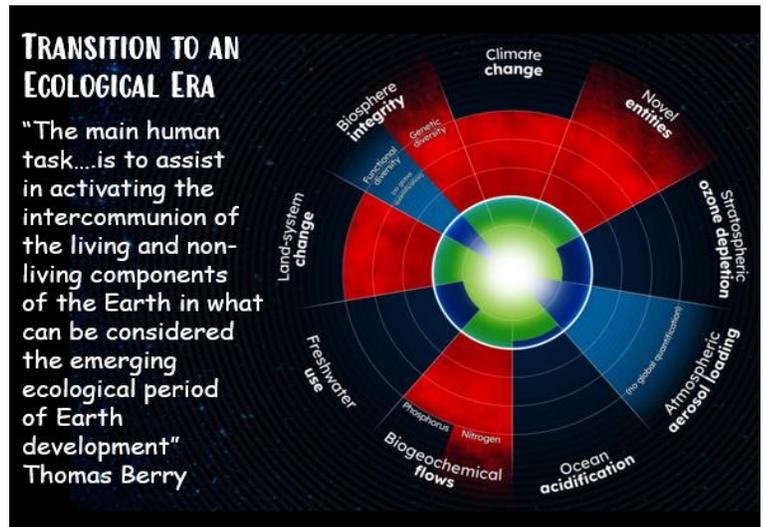
7 Its all very well developing people who are resilient in the face of change but if the world itself isn't sustainable, what is the point? In the last 50 years, what has made a complex world even more complex, is the gradual but increasingly alarming recognition that the world we have created for ourselves, is not sustainable. Covid and the war in Ukraine are just two recent illustrations of the fragility of the world order and the turbulence and destruction when balance has been disrupted.



But there are much bigger and more destructive processes in progress and if we do not learn how to change our behaviours and our economic systems quickly, human civilization and all natural ecosystems are going to be at risk.

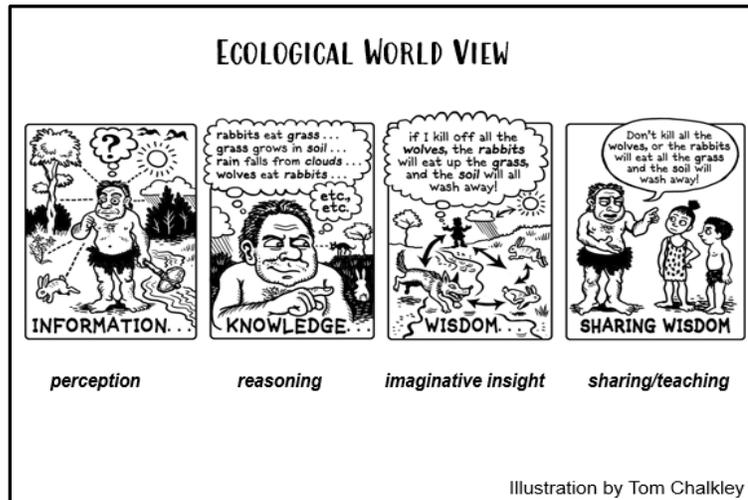
8 As we exceed key planetary boundaries ^{5,6} upsetting the fragile balance that has characterised our modern existence, we are creating for ourselves the most challenging and costly wicked problems humanity has ever had to deal with.

We need to change the way we live if we are to have a future and that involves changing the way we think about ourselves in relation to everything else. Optimistic views of the future guide us towards a new Ecological Age⁷, an emergent Ecological Civilization⁸, and a universal culture of lifelong learning⁹ and education integrated with a lifelong commitment to learning are crucial to enabling this transition.



An ecological perspective

9 To achieve the transition to an ecological civilization will require many changes to our thinking and behaviours. One of the most important is the adoption of an ecological world view within which all human activities, including learning, work and other social practices, are understood in relationship to the effects of our actions on the world.



This cartoon by Tom Chalkley illustrates the foundation of an

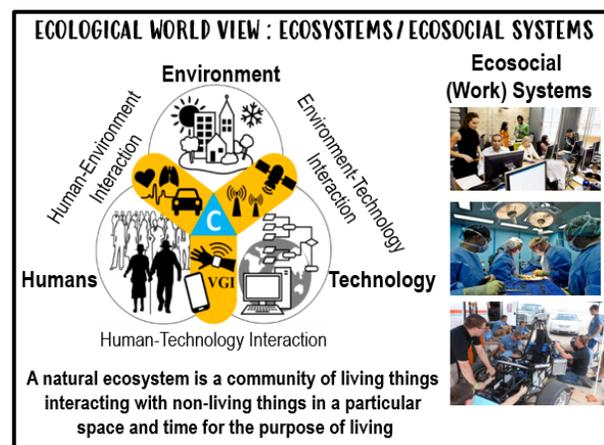
Ecological World View¹⁰ namely, that fundamentally we are ecological beings enacting life within and with an ecological world of relationships. connectivities and interdependencies. In fact, we should recognise that we do not exist independently of the world around us. Our very existence depends on us being deeply connected, related to and dependent on, other people and living and non-living things – like the air we breathe.

In the spirit of expanding employability narratives to embrace more distant futures in a fragile and currently unsustainable world, I will try to offer an integrating perspective based on the idea that we are ecological interbeings enacting life within and with an ecological world of relationships. connectivity and interdependency. If we are to succeed in ‘learning for sustainable regenerative futures’, we need an ecological vision and concept of learning and social practice – including work. “The foundation for readiness [for the future] lies in developing a strong inner self that is resilient, reflective, and able to see, develop and value positive connections and relationships [with the world]”¹¹.

10 The ecological world is self organising - as dominant agents we are of course active in organising the world in a way that benefits us. The natural world organises itself into ecosystems. We live within natural ecosystems but we also create for ourselves ecosocial systems.

A natural ecosystem comprises the complex set of relationships and interactions among the resources, habitats, and residents of an area for the purpose of living.

But a human ecosocial system serves many more purposes than living – it constitutes a specialised environment for – acting, performing, producing,

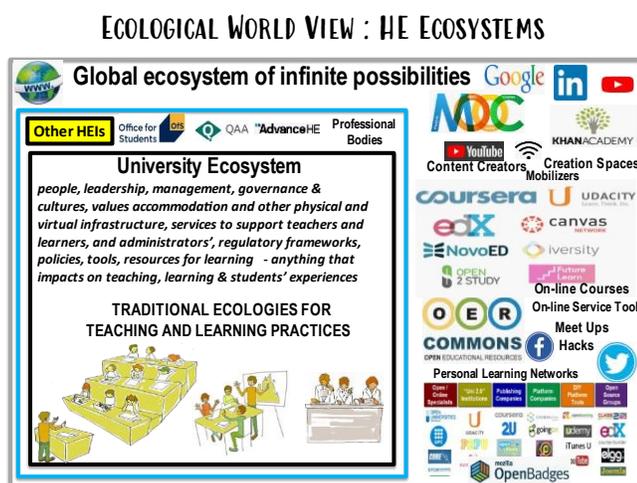


making, creating, learning, achieving particular things. Some examples of work ecosocial systems are illustrated.

A world in formation in which everything is continually reforming – people, social structures and infrastructures, places, institutions and organisations, contexts, ideas, technologies and more lends itself to the idea of ecosystems as a description of the dynamic environment in which people, technology and the material and non-material environment interact.

The idea of ecosocial systems forces us to think of the whole system in which people live and work, form relationships and interact in order to achieve the things they value and access the flows of information and resources that are essential to learning and achieving.

11. Higher Education is a specialised ecosocial system¹² and a key social infrastructure. As in all ecosystems there is a nested structure and interactions and information flows between the different levels of the systems. At the chalk face so to speak are the ecologies of practice that practitioners create in order to enable learners to learn. These are enacted within particular disciplinary and curricular contexts which are embedded in departmental ecosystems which in turn are embedded within institutional/



organisational ecosystems with rules, culture and information flows that regulate what happens at deeper levels. The system is open to the societal and global HE system within which many different sorts of agents and agencies are embedded, including organisations that employ people. They are an important part of the ecosystem for employability practitioners and for students.

Towards an ecological concept of learning

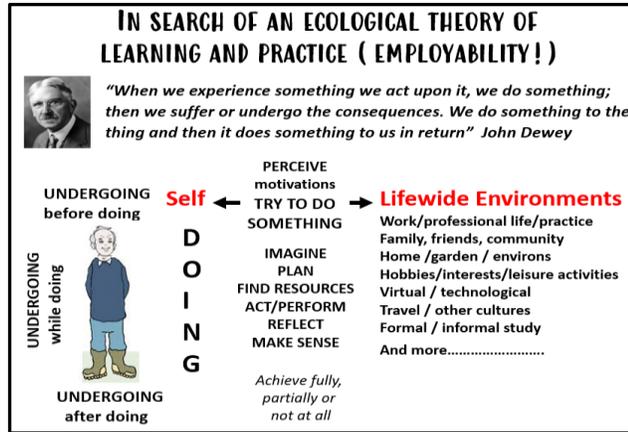
12 I reason that if we are to make this transition to ecological ways of thinking about and being in the world then we need an ecological theory of learning that can be embedded in our educational thinking and practice.¹³

I am trying to develop an ecological concept of learning founded on John Dewey's concept of learning through experience – experiences gained as people participate in the world for particular purposes in particular situations. Dewey understood our intimate relationship and interdependency with our environment. The diagram summarises his interactional model and the changes (which he calls undergoing) that result in the person through their interaction.¹⁴⁻¹⁶

Dewey explains that experience is always a dynamic two-way process, “An experience is always what it is because of a transaction taking place between the individual and, what at the time, constitutes the environment”^{15 p.}

43. “When we experience something we act upon it, we do something; then we suffer or undergo the consequences. We do something to the thing and then it does something to us in return”^{14 p.104} Dewey suggests that experience involves both ‘trying’ and ‘undergoing’.

‘Trying’ refers to the outward expression of intention or action. It is the purposeful engagement of the individual with their environment or in Dewey’s words, “doing becomes trying; an experiment with the world to find out what it is like”. Through action an attempt is made to have an impact on the world. ‘Undergoing’, the other aspect of the ‘transaction’ in experience, refers to the consequences of experience on the individual. In turn, in attempting to have an impact, the experience also impacts on us. This transactional view of experience involving people situated in and interacting with their environment, using resources and modifying their environment and the things and people in it, provides the foundation for the ecological perspective on learning and action.



13 In trying to explain practice and related learning as an ecological phenomenon let’s start by applying Dewey’s interactional model to an example of non-routine cognitive work.

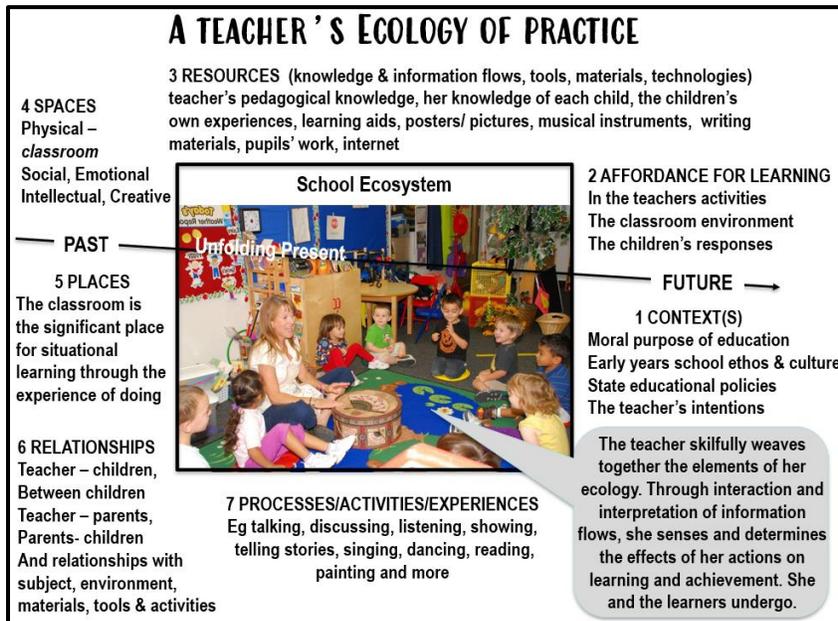
Here we have the wonderful sight of a teacher in her classroom with her children immersed in an activity for the purpose of learning. She is clearly living the moral purpose of education and there is real joy on the faces of all participants.

The teacher perceives her environment and makes sense of the situation. Through years of training and practical experience she has undergone to be in this situation. Furthermore, she will have planned her lesson before she enters the classroom.

Through formal training and lived experience she has undergone before entering this situation. From her learned repertoire of actions she selects the actions that are most likely to engage her students, she monitors the effects and adjusts her actions where necessary. Learning and other achievements emerge through the interactive process. After the class she critically reflects on her actions and their effects and

learns from her remembered experience and imagined possibilities. Through the totality of these experiences she continues to learn and undergo.

Her actions are consistent with what Michael Eraut calls and epistemology of practice¹⁷ which all professionals do when they encounter a new situation. 1) Assess it 2) Decide what to do 3) Do it monitoring effects and adjusting where necessary 4) Reflect on and learn from the whole experience'



14 By studying the nature of the relationships and interactions we can create a map of the dynamic world the teacher is inhabiting and influencing and gain insights into the way she interacts with her environment – her ecosocial system. I am calling this set of relationships and interactions an ecology of practice.

Her ecology of practice¹³ has a past – her own life experiences and particularly those

experiences that have enabled her to undergo and become a teacher. The knowledge and skills she brings to the situation is the result of her past undergoing. Her ecology of practice has a present as it unfolds in her classroom as she causes or interacts with each new situation. In her near future she is likely to reflect on her experiences and learn from them. And in her more distant future she will draw on the experience and what she learns as she plans new actions.

The teacher's thinking and actions are shaped by many things.

Firstly, she is embedded in a number of contexts- for example the ethos and culture of the school, the various policies that affect what and how she teaches and the particular educational context of what she is trying to achieve

Secondly as she takes in the information flows resulting from activity she can perceive new affordances – opportunities for action as the children participate in the activities she has created.

There are abundant resources in this environment to stimulate and support learning but the most important resource is the teacher and the children.

The classroom is a special place for learning in a school that is also a special place for learning. The children expect to learn when they come to this place.

They inhabit a physical space but the teacher also creates cognitive, psychological, emotional and playful spaces for interaction and learning.

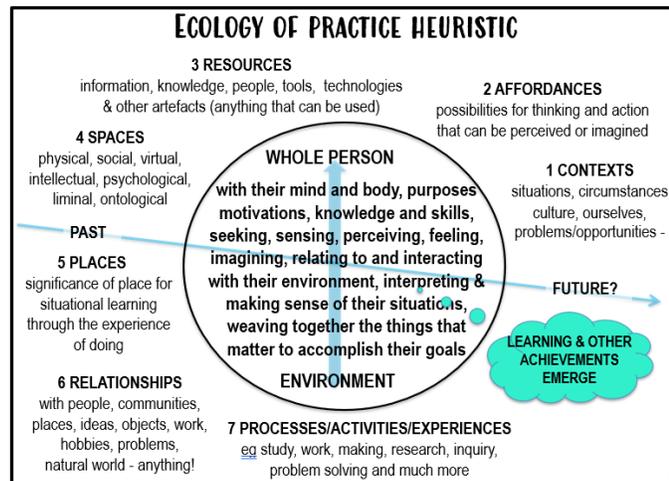
Everyone and everything in this environment is related and these relationships are used and developed through the particular activities that are orchestrated and facilitated by the teacher. Activities that are intended to cause interactions that will lead to learning.

The components of this ecology for practice in which the intentional outcome is learning and development, are woven together by the teacher in a part deliberate, part opportunistic act. The teacher is creator but she only comes to understand the effects of her ecology as it unfolds and so she monitors the effects and adjusts her actions where it is appropriate. Through her actions, the tools she uses and the feedback she gains through her senses, the teacher extends her mind and body into his environment so that she becomes indivisible with it and the ecology she is creating.

Within the ecology meanings are shared and co-created and the totality of the experiences enable both the teacher and the children to UNDERGO – through this ecological process they are becoming incrementally different people.

15 From this simple example of practice we can devise a tool or heuristic^{12,18} that we can use to examine and interpret any practice within which learning emerges.

The creator of an ecology of practice draws on and weaves together aspects of themselves and their environment. Their ecology of practice enables them to extend their mind and body into their environment, a process that is assisted by the tools they use. It is the means by which they become indivisible with their environment or as Tim Ingold so eloquently put it. ‘organism plus environment’ should denote not a compound of two things, but one indivisible totality”, “this totality is not a bounded entity but a process in real time: a process, that is, of growth or development”.



This heuristic provides the foundation for an ecological perspective on practice and learning that is embedded in practice. It shows us that we are fundamentally ecological beings – thinking and acting in an ecological – relational and interdependent manner – and our very existence depends on this.

It lays the foundation for a different relationship with the world and puts us in a better position to understand how we might contribute to a more sustainable future. If this idea is accepted, then education is the means by which the idea can be given practical meaning.

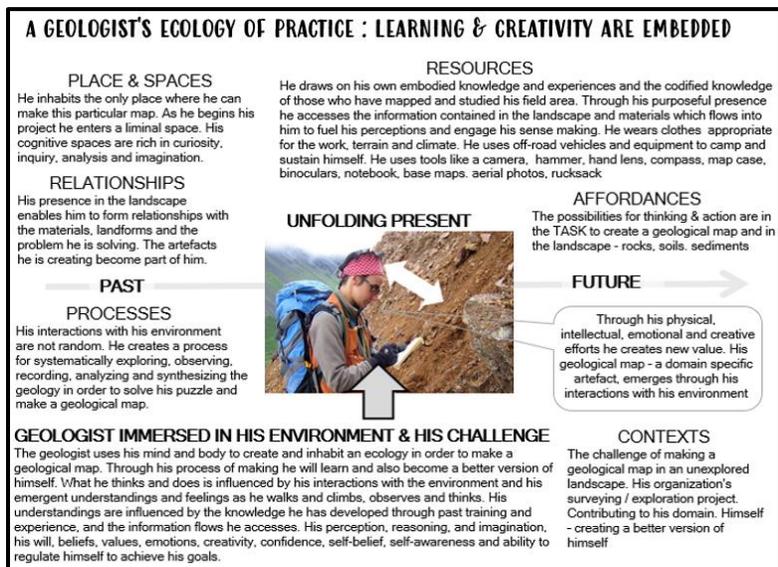


16 I would like to share another example of applying the ecological heuristic to practice using an example that is close to my heart, namely a geologist making a geological map. (I was a geologist for 20 years!).

It illustrates how skilful and creative work is directed to understanding one facet of an environment – its geology by being immersed in the environment in a knowledgeable and skilful way.

The geologist enters his field area often knowing little about it. He has

to extend his body and his mind into the environment to access the information flows that enable him to work with his problem. He uses a range of tools and patiently and accurately perceives and reasons to comprehend what he sees. He records his observations building a picture as he goes. His imagination helps him speculate and conceptualise his problem to help him understand and solve his problem. Each step determines where he will go next. His domain specific artefacts emerges through this process.



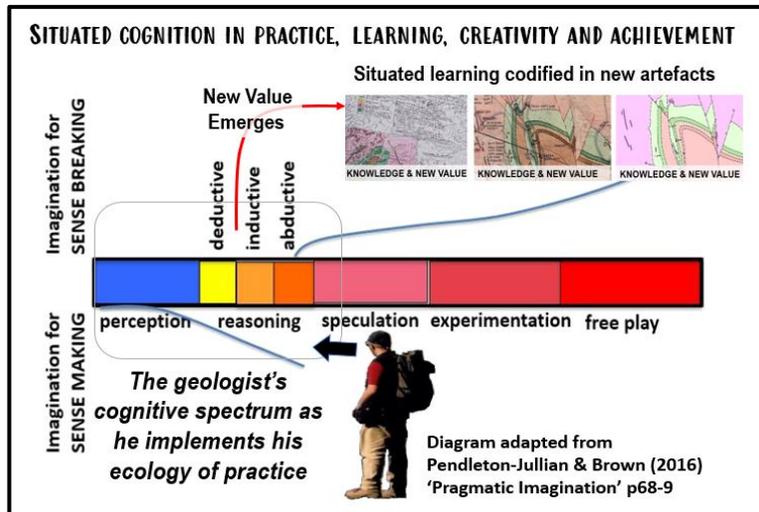
17 A geologist's ecology of practice¹⁹ comprises themselves, their mind and body and all they can bring to the situation as they relate to and interact with their environment. Their ecology includes them interacting with a unique physical environment – the only place in the whole world where this particular map can be made. It contains the materials (rocks) and other resources including the tools they need to make the map.

As they begin their project they enter a liminal space with all the

uncertainty of not knowing. Their ecology of practice affords the means of working in this liminal space and all the other intellectual and psychological spaces they need in order to progress to a higher level of understanding. Their ecology of practice includes their work activities and the methodologies and

processes they employ using specific tools and technologies. Their main source of information is from the environment itself – the landscape, rocks and structures they are able to observe. Before they enter the field environment they will conduct research into what is already known. They gather the resources they need, such as aerial or satellite photographs and topographic maps, and use these to make preliminary assessments of the geology. When they enter the field environment, they will physically cover the ground, gathering and processing lots of information through skillful actions like locating the position of a rock or structure.

18 A geologist’s ecology of practice provides him (it could equally be her) with access to the materials and information he needs to accomplish his task. His cognition is situated. He uses all his senses to access the information flows and his perception, imagination and reasoning work together in a merry dance to make sense of his experiences. The map of cognition right²⁰ illustrates enactive cognitive processes triggered by environmental interaction. The



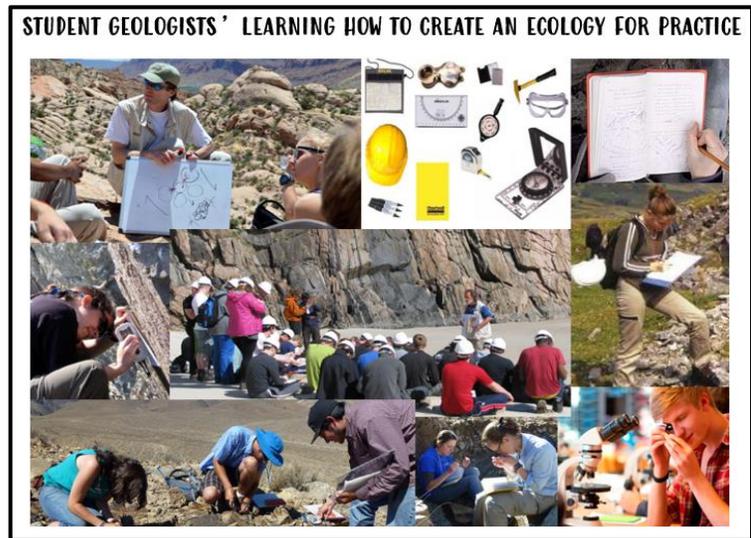
knowledge he develops is embodied in his continuing performance in the field and codified in new disciplinary artefacts - his maps which are the new material objects he brings into existence which embody his learning. Out of this complex interactive process creativity emerges.

The key meta-skill for surviving and flourishing in the world of the future has to be our ability to think with sufficient complexity to be able to understand the situations and contexts and projects we are involved in. Such thinking is deeply ecological in the sense that it involves us being immersed in and being able to access and process the information flows from the environment of which we are a part. This diagram provides a neat way of summarizing the complex interplay between our perceptions as we access and try to make sense of the information flows. How we reason to create knowledge from these flows of information. How we make use of our imagination to extend our understandings. Most importantly, it is in these mental processes that are stimulated through our interactions with our environment and the people and materials in it, that our creativity lies. Our creativity is going to be essential for survival and flourishing in non-routine cognitive work domains in the future and also for learning how to live in a sustainable regenerative way.

Applying ecological concepts of learning and practice in higher education

19 So the ecological challenge for higher education geology teachers becomes how might we enable our students to think and act like a geologist in the field environment. The answer is quite simple you put them in the environment where they will be expected to perform, show them what to do and get them to do it.

In other words we expose them to the signature pedagogies of disciplines and fields of practice and the associated signature experiences – like those being shown here.

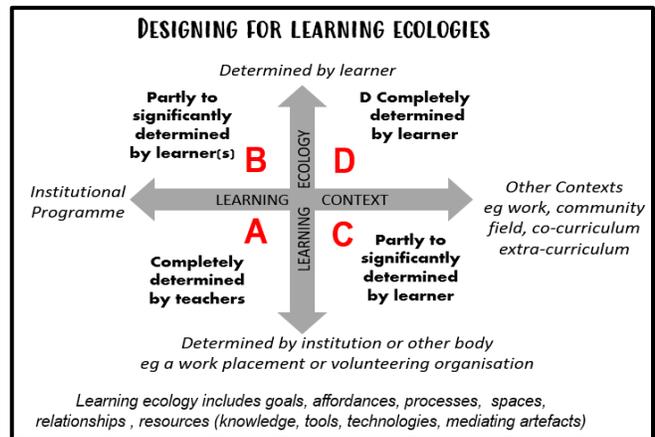


Signature pedagogies are the modes of teaching, used in the preparation of people for a particular profession such as law, medicine, engineering, teaching or being an architect or geologist. Signature learning experiences are the activities and situations learners engage in as a result of signature pedagogies. Shulman defines signature pedagogies as “the types of teaching that organize the fundamental ways in which future practitioners are educated for their new professions.”²¹ Professional education involving close to real world simulations, and on-the-job learning in professional workplace situations are the main contexts for these pedagogic practices. These types of pedagogies comprise a synthesis of three apprenticeships—a cognitive apprenticeship wherein one learns to think like a professional, a practical apprenticeship where one learns to perform like a professional, and a moral apprenticeship where one learns to think and act in a responsible, ethical and value-based manner that integrates across all three domains. A signature pedagogy has three dimensions: surface structure, deep structure, and an implicit structure. Surface structures consist of concrete, operational acts of teaching and learning, while deep structures reflect a set of assumptions about how best to impart a certain body of knowledge and know-how. The implicit structure includes a moral dimension that comprises a set of beliefs about professional attitudes, values, and dispositions.

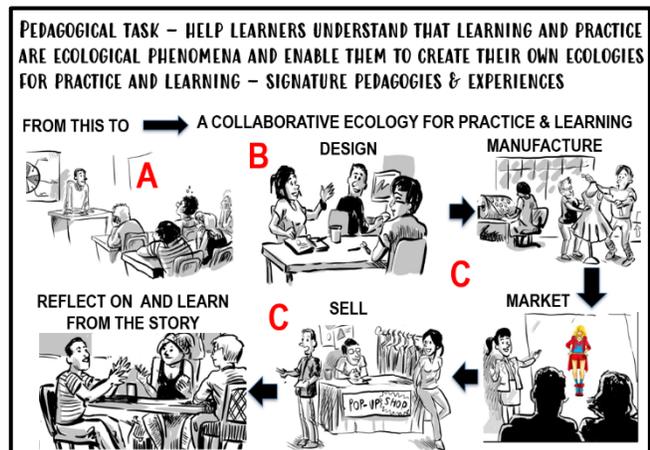
20 I believe the essential capability in any non-routine cognitive domain of work is to be able to create and implement an ecology for practice in which learning is integrated. It is the means by which the practitioner extends their mind and body into the environment to understand the problem and access the information flows. It is through this process of relating and interacting that we learn and undergo (transform understandings).

Regardless of the domain the most important pedagogical task for teachers involved in preparing learners for non-routine cognitive roles is to enable learners to develop themselves so that they can create their own ecologies for practice which incorporate their learning.

This simple tool enables us to see where, in the totality of a students' experiences, they are able to create and implement their own ecologies. It shows 4 domains in which learners have little or no control, partial to significant control and complete control over their ecologies for learning.¹²



21 It's possible to create experiences through which learners can create, to a greater extent, their own ecologies through a signature learning experiences. Here is an example of how two lecturers turned a lecture-based module in manufacturing and retailing in a school of fashion, in which they controlled most aspects the ecology for learning, into an authentic process for experiential learning in which learners themselves were able to create their own ecologies of practice within which their learning was embedded.



Aided by a small grant from the university, the brief was to invent and design a range of collegiate garments. The designs had to be industry standards in order for a manufacturer to produce them. Students worked alongside the teacher who had manufacturing experience. Once made the students created a marketing campaign and pop-up shops in and around the university and sold the garments making a small profit, the funds were then reinvested for the next educational cycle. The process gave students the chance to invent their own collaborative ecology for learning and practice and teachers 'worked alongside' them.

An ontological curriculum – for being & interbeing

22 An ecology of practice in which learning is embedded is an ontological concept. It involves us in an unfolding present in activities through which we continually undergo. Weaving together the things that matter in our ecology means we are in a state of interbeing and interbeing.

LEARNING FOR AN ECOLOGICAL WORLD IS AN ONTOLOGICAL TASK



Amid supercomplexity, the educational task is primarily an ontological task (Ron Barnett 2004)

rather than a knowledge or skill-based curriculum we need a curriculum that also engages deeply with the ontological dimension of being human, of being human in a world of great uncertainty that is constantly reforming, and of undergoing – of becoming different as we engage with this constantly emerging world

Knowing-Acting-Being curriculum paradigm Barnett & Coat (2005)

Science & Technology Humanities & Arts Professional domains



Curriculum for an Ecological Interbeing



Deeply aware of relationships, connections and interdependency

Twenty years ago Ron Barnett recognised the importance of the ontological dimension in educational practice, when faced with what he saw as a supercomplex world.²²

Ron argued that it was fairly pointless filling students heads with knowledge that had little relevance to the world of supercomplexity. Identifying a set of skills that would equip learners for uncertain futures was also a fairly futile act. He argued the pedagogical task is

ontological – it is one of enabling learners to be and become the version of themselves they want to become. Its' the project that drives our deepest motivations and is born of our ambitions for the future. *“So rather than a knowledge or skill-based curriculum we need a curriculum that also engages deeply with the ontological dimension of being human, of being human in a world of great uncertainty that is constantly reforming, and of undergoing – of becoming different as we engage with this constantly emerging world.”*²³ It's a view that is consistent with the narrative I am creating of a continually forming ecological world populated by ecological beings who are also continuously forming.

Ron analysed many curriculum documents and developed a knowledge-action-being curriculum model in which different subjects emphasised different elements of the model. I think we can extend and adapt this model to embrace the idea of a curriculum for an ecological interbeing for an ecological world.

23 It should come as no surprise that I believe we should frame human development and achievement as a whole of life enterprise at the core of our existence and who we are. I believe that Eduard Lindeman's words written 100 years ago should be at the heart of an integrated policy for lifelong learning and education and that the moral purpose of education and lifelong learning should extend to the planet and all the life it supports.^{13,25} We need an enhanced concept of lifelong learning and one way of achieving this is to make the lifewide dimension of

LIFE IS OUR ONTOLOGICAL CURRICULUM



Curriculum for an Ecological Interbeing

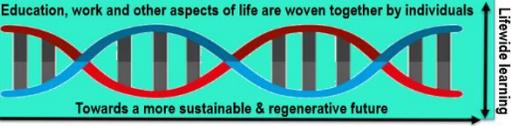
1 The whole of life is learning therefore education can have no ending *Eduard Lindeman*

2 To develop a culture of lifelong learning it must be the governing principle for education policy (*UNESCO 2020*)

3 [Lifelong] learning [is] for oneself, for others and for the planet, it has a key role in driving sustainability (*UNESCO 2020*)

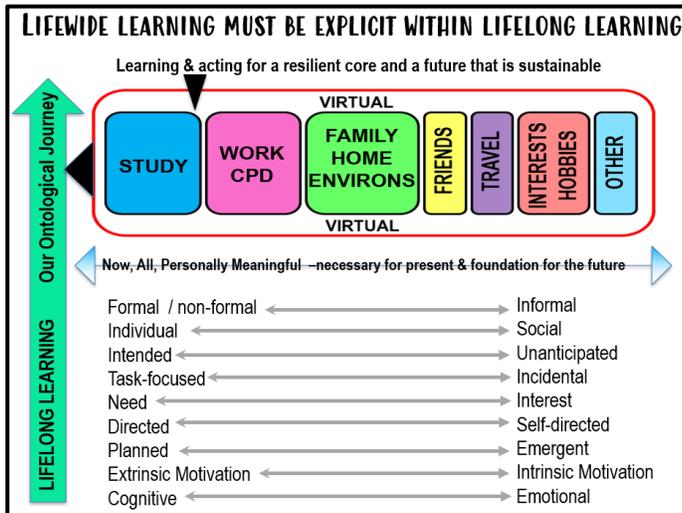
Deeply aware of relationships, connections and interdependency

Education, work and other aspects of life are woven together by individuals



Lifewide learning: All learning activity undertaken throughout life with the aim of improving knowledge, skills and competencies within a personal, civic, social, environmental & employment-related context. (*Commission of European Communities 2001*)

lifelong learning explicit. Some people argue that lifelong learning subsumes lifewide learning. Burying one concept in another is what policy makers do all the time to try to create simplicity but it is false. By subsuming it we deny its existence. By articulating and exploring it conceptually and practically, we can use it in our educational thinking in a way that talking about lifelong learning does not achieve¹³.



24 So what is lifewide learning?²⁶ Lifewide learning adds important detail to the broad pattern of human development by recognising that most people, no matter what their age or circumstances, simultaneously inhabit a number of different spaces - like work or education, being a member of a family, being involved clubs or societies, travelling and taking holidays and looking after their own wellbeing mentally, physically and spiritually. So the timeframes of lifelong learning and the multiple spaces of lifewide learning will characteristically

intermingle and who we are and who we are becoming are the consequences of this intermingling. So recognising lifewide learning is important is important for understanding our ontological journey. We learn, develop (become) as a person in every part of our life and our ontological journey of becoming is made up of our becoming across these domains of our life.

The concept of lifewide is the most comprehensive and inclusive framework within which we can understand learning and personal development which makes it the most useful and powerful concept for education. The lifewide dimension contains all the circumstances of our current life and determine who we are. But because we can influence them we can change or add to these circumstances in this way it is the lifewide dimension that enables us to be who we are and become who we would like to be. The lifelong dimension merely shows us who we became and helps us make sense of our journey.

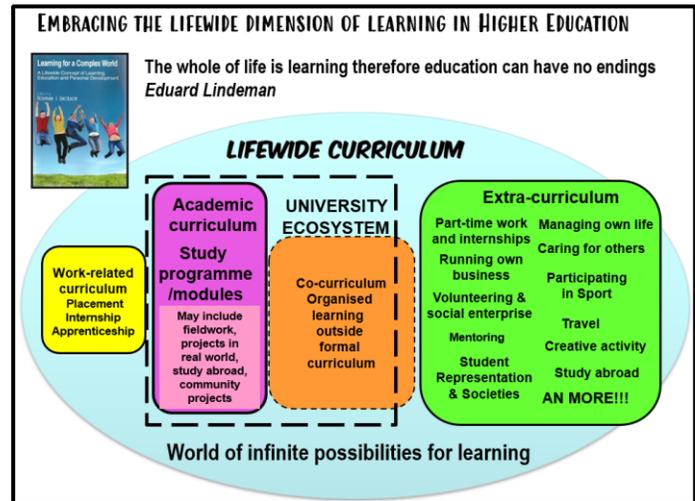
These ideas clearly locate learning and development in particular contexts and situations in our lives. But its our capacity to reflect on experiences and create narratives from which we are able to extract new meaning that enables us to integrate and apply our learning to other situations.

Applying the idea of a lifewide curriculum in higher education

25 How might we use this idea in a practical way in integrated policy and practice for lifelong learning and education?

A decade ago I was involved in an experiment at the University of Surrey to develop and apply the idea of lifewide learning to demonstrate how a university may encourage, support and recognise such learning and development.

To engage with the idea of lifewide learning by embracing the concept of lifewide education²⁷ a university needs to adopt a holistic view of learning, invest in new infrastructure to support and recognise such learning, and develop a culture where students can see that their efforts to learn and develop in spaces and situations outside the academic curriculum are valued.



Using the University of Surrey experiment in implementing lifewide education to illustrate an approach we designed an Award (Surrey Lifewide Learning Award)²⁸ to encourage and recognise learning and development in every aspect of a student's life. It was not dissimilar to some of the Employability Awards that many institutions offer but the emphasis was on all forms of learning and development which included employability/work related. The award was underpinned by a lifewide curriculum²⁹ to encourage learners to appreciate where, how when and why they are learning in all parts of their life and to appreciate learning as an ecological phenomenon – in contrast to the linear programmatic, outcomes-based approach they are familiar with in education. Learners engage in a self-regulatory process (PDP-type process) to identify aspects of themselves they would like to develop and identify where in their life they can see opportunities for such development. Step three involves implementing their plan being sensitive to their learning and the contexts and situations they are learning in. They document this and create narratives that convey their becoming and an appropriate process is put in place to assess/validate claims.

26 At Surrey we told students that they could use any means to tell their story – for example they could fill a shoe box with artefacts that represented their learning and development and as long as they could communicate their journeys and the transformations that they made we would validate and recognise their learning and development through the Lifewide Learning Award. Students chose a variety of media but one of the favourites was a scrap book. They wanted something material and

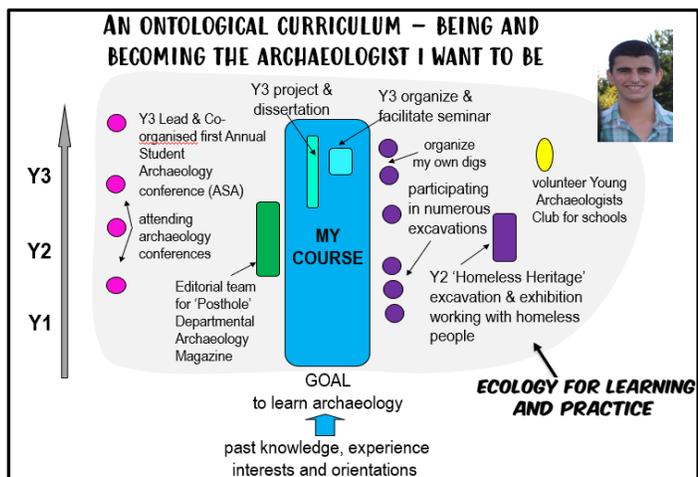


physical to touch as they recounted their stories. In this way students were learning to develop a learning biography. The whole process could be conceptualised as a type of PDP (personal development planning) in which their ontological journeys and identity development were central.

Life as an ontological curriculum – a learner’s story

30 As so often happens in higher education students discover and create for themselves their own narrative of lifewide learning and create their own ecologies for practice within which their learning and development is embedded.

Students’ interests, needs and ambitions are not limited by their course or the pedagogical practices they are subjected to. An engaged, proactive student will seek out opportunities and create them for themselves using their whole life as their



environment for learning. This is especially the case when developmental opportunities within their course are limited. I would like to finish with a story of how one student created his own lifewide curriculum and his own ecologies for practice in order to pursue his ontological journey towards becoming the archaeologist he wanted to be.³⁰

[In going to university] I wanted to become an archaeologist and that ambition caused me to get involved in many things outside my course that I thought would help me become an archaeologist. The most obvious process I engaged with to learn archaeology was the timetabled and structured course. This involved the reading of set course material much of it accessed through on-line journals and participation in lectures. This structure that was designed and taught by my teachers allowed me to follow a very clear process of learning, helping me to fully understand what information I had to know within the course. My degree course formed the backbone to my

learning about archaeology. It provided me with contacts with people who were also interested in my subject and enabled me to develop a mind-set that encouraged me to engage with archaeology in many different ways.

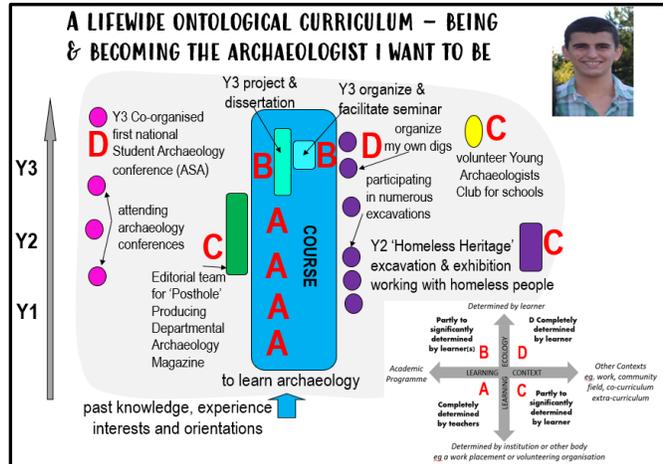
The one experience in my course where I feel I had to create my own learning process was my final year dissertation which required me to create a project around something I found interesting and challenging. I had taken a module in my second year which involved a technique called ZooMS for analysing collagen in animal bones to identify animal genus. The academic responsible for developing the technique wanted someone to try the technique on erasure rubbings from bones. I thought this was interesting so I wrote my proposal and created a process that involved me sourcing samples, experimenting using different rubbing and collagen extraction techniques, analysing the collagen using a Mass Spectrometer, then processing the data and writing up the results. Although the process for achieving my goal was not particularly smooth it was one that I had largely created based on my past experiences of academic research gained throughout my three years at university. A lot of different people helped me including my supervisor, laboratory technician, two of my peers who were involved in similar work, a museum curator, and a PhD student within the department. I drew on a range of resources and facilities including collections of ancient animal bones, specialist laboratory, processing software, and articles. The research process was not straightforward and I was forced to modify my process as I realised that certain methods did not give me the results I was hoping for.

Being an archaeologist involves 'digging' to expose artefacts through which we can interpret the past. Unfortunately, my course only provided a four-week introductory fieldwork course so I joined a number of 'digs', six in total run by two different PhD students, a member of the academic staff, a commercial company, and an external public organisation. I probably spent over three months on excavations which gave me valuable insights into how to organise and conduct a dig, how to conduct various types of surveys, how to prepare, identify and display artefacts and beyond this how to work as a member of a team. The commercial digs I undertook introduced me to the world of commercial archaeology and the different approaches and mindsets that are used in the commercial world.

One of these [digs] had a particular significance for me. Homeless Heritage is dedicated to working with homeless communities in order to understand and value the spaces used by such communities using archaeological methods. It involved [me] working with homeless people in order to understand the relevance of what [was] found. In this way I was able to form friendships with people I would never have come into contact with in my student life. I began to appreciate the problems of homeless people and to see the world through their eyes.

Looking back over my higher education experience I can now see that my course provided me with the basic knowledge I needed but that my attempts to learn archaeology and become an archaeologist involved much more than turning up for lectures and studying the reading list. I believe that the choices I made in getting involved in these wider experiences personalised my experience and the learning I gained from it and helped me become the archaeologist I wanted to be.

This narrative demonstrates how the idea of lifewide learning and learning ecologies can be applied to undergraduate higher education. It shows that this learner's process of learning, being and becoming was not confined to an academic programme. Rather we see how his motivation to become the sort of archaeologist he wanted to be and his desire to create new meaning, form the central purpose around which he forms his own ecologies to develop himself beyond the opportunities his course offered. His goal - to learn archaeology and gain a good degree - sustained his motivation over the three years he was studying, but it was the particular projects he embarked on that gave him the opportunities to become the sort of archaeologist he wanted to be. He found opportunities to be and become an archaeologist in different contexts which grew from the circumstances of his life and the relationships he had formed.



Through his narrative, we see that throughout his course he was involved in the ecologies for learning created by the teachers in his department (A in figure above) and but describes an experience where he was essentially responsible for designing and implementing his own ecology of practice within the institutional environment (B in figure above) in which considerable learning was embedded (his final year research project). We also see several examples of experiences outside the institutional environment where he participated in the learning and practice ecologies of others (archaeological digs C in figure above) some of which had a significant impact on him. Towards the end of his course his confidence and capability were such that he organised his own digs and lead and helped organise a national conference in which he created his own ecologies for practice containing significant learning (D in figure above).

Through a combination of his course experiences and his own efforts, he participated in and created experiences for learning, personal development and achievement in all four of the conceptual spaces shown in slide 20 and inset in the figure above. He optimised his own education for the future and transformed himself in the process.

A vision of liberatory education

The latest Knowledge Works foresight report³¹ argues that *“Everything is changing, but so much remains the same. Our world is undergoing massive shifts. The disruptions that we are experiencing are existential in nature and global in scope. They are creating challenges that call into question the ways in which we choose to interact as a society. Yet many of the systems and structures on which we rely, including our systems of education, have been slow to change or have continued to reproduce patterns of inequity and injustice.”* To tackle the enormous challenges of our time and the coming future, it calls for a new, liberatory, form of education described by Rapheal Randall as *“rooted in self-determination [and] derived from an understanding that all human beings have the right to participate in shaping a world that is constantly shaping them”*³².

A liberatory education system is one that prioritizes the science of learning and human development in tandem with culturally responsive instruction. It recognizes the boundlessness of our collective potential as human beings, opting for an education situated in abundance. Knowledge creation is not solely the task of well-paid academics, business aficionados, and state bureaucrats; but people from all walks of life theorizing each day by culling new insights from their current and past experiences, as well as those of their forebears. Theory is humanizing, and all citizens should be trained to analyze their daily lives to better come to grips with their own agency and ability to change the world. It seeks to re-immense people in the ecology of the physical world as partners of all living things and to rectify the social and economic problems confronting our neighborhoods and communities and prioritizes human potential and promise and reconnects people to our creative natures.³²

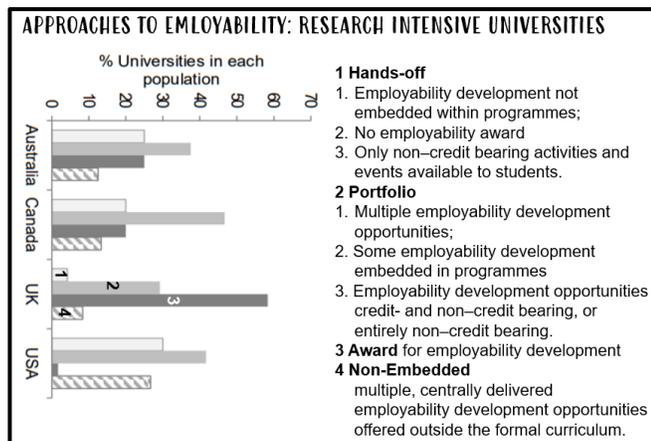
The ideas and arguments discussed in this narrative would seem to fit well with this vision of education.

Employability and the lifewide-ecological narrative

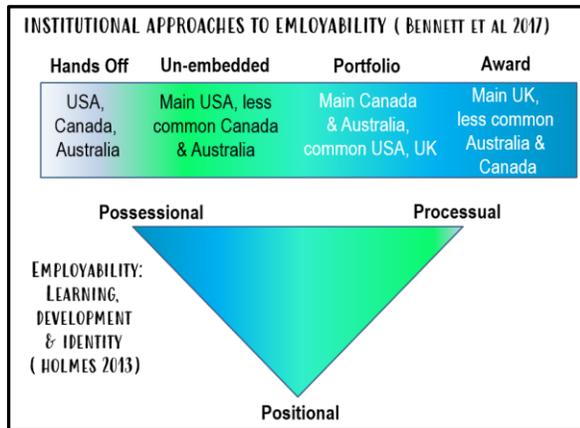
The ecological narrative I am developing is a necessary but largely hidden feature of the development and everyday activity of human beings including their performance in the employability domain of their life. In my closing slides I will try to make some connections to what I have been saying to the employability domain of scholarship – bearing in mind that I am not a scholar of this domain.

Institutional approaches to employability

27 Bennett and others³³ synthesised information from 117 research intensive universities and found 4 main strategies which they termed **Hands-off** in which the institution does not actively engage in learner development relating to employability. **Portfolio** in which the institution provides lots of employability-related developmental opportunities within and outside the curriculum and the onus is on learners to create and narrate their own portfolio. **Award** in which the institution explicitly recognises learner development in areas that relate to their employability through an award that sits alongside their academic qualification – opportunities are provided inside and outside the formal curriculum. This approach is very common in the UK. And **Non-embedded** where an institution offers multiple, centrally



delivered employability development opportunities outside the formal curriculum. *“Our work shows that employability models can be positioned along a continuum of institutional involvement and responsibility, with the Hands-Off at one end, followed by Non-embedded, then Portfolio, with Award at the opposite end of the continuum.”³³*



According to Holmes's³⁴ employability can be characterised as mixes of possessional, positional, and processual qualities and other attributes and these form the basis for concepts or models of how employability is framed and approached in institutional environments.

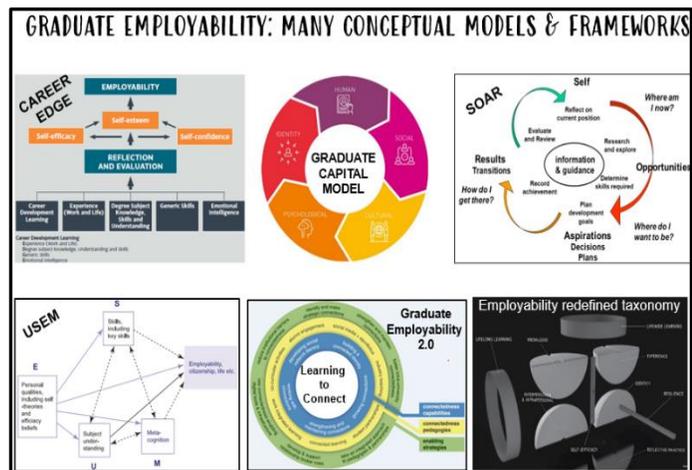
The possessional approach focuses on graduates possessing a collection of skills, abilities, or characteristics needed for employment – it aligns to Portfolio and Award institutional approaches to employability. The positional orientation

acknowledges that building up personal, social and cultural capital through higher education study, including access to employers through work placements and other activities, and alumni networks, should enable graduates to better position themselves and gain access to the employment market. The processional approach to employability development takes on the ontological dimension of being and becoming encouraging individuals to develop and represent themselves capable, skilful, adaptable lifelong learners who can reshape themselves to different contexts and develop new skillsets as required.

Employability models – non-routine cognitive domain

28 You will know, much better than I do, that many conceptual models and frameworks that have been developed for employability-related work in higher education. ^{eg35-40}

All are seeking to synthesise what the authors believe to be the most important attributes, capabilities, experiences, orientations and processes necessary to develop a person so that they can be, and continue to be, employable. They embrace they embrace the three learning and



development orientations to employability identified by Holmes. At least one of these models (SOAR) has now been extended to embrace the needs for a sustainable regenerative future and it shows education for sustainability and employability/career development can be integrated^{37, 41}.

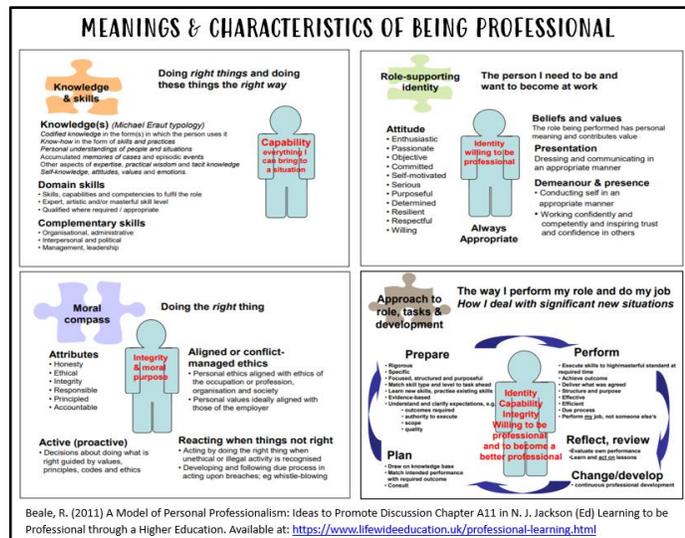
Taken together they move human development well beyond that associated with an academic curriculum and into a set of developmental experiences that I would associate with whole person participation in a lifewide curriculum. Although no institution to my knowledge (apart from the development work we did at the University of Surrey in 2008-11) has explicitly recognised this. Collectively, these models also emphasize the self-efficacy, self-regulatory processes, the epistemology of practice including reflective practices, that are at the heart of an ecology of practice. While I might be critical of policies and practices that are atomistic in their approach to employability the ultimate aim of

these models is to integrate many things and to appreciate learners as whole people – albeit in the singular context of employability rather than the much broader contexts of the whole of their life.

Whole person ontological concept of employability / being professional

29 For third perspective on concepts of employability I will draw on Richard Beale’s⁴² attempt to provide a holistic picture of what he thinks are important to being an effective practitioner working in a professional environment.

His synthesis brings together and connects domain specific knowledge and skill, identities based on beliefs, values, attitudes and presence, morals and ethics that require attention and processes and practices based on self-regulation and Eraut’s epistemology of practice. Even at this level of synthesis it reveals some of the complexity in the development of a human being with agency to identify and fulfill a non-routine cognitive work role.



Beale, R. (2011) A Model of Personal Professionalism: Ideas to Promote Discussion Chapter A11 in N. J. Jackson (Ed) Learning to be Professional through a Higher Education. Available at: <https://www.lifewideeducation.uk/professional-learning.html>

Of course its not enough to merely possess these things, they have to be enacted and integrated in an appropriate way in the thinking and actions undertaken in specific contexts and situations as an individual performs their work. Furthermore, effective performance in one situation does mean it can be reproduced in another – there is an experience dimension to being an effective professional. As Michael Eraut points out - we are continually developing (or regressing) along many different learning trajectories¹⁷ and it’s the whole of our life that affords us access to experiences along which we can develop as a human being.

Embedded in this whole person’s being is the strong inner psychological core that supports resilience, sustainability and, if necessary regeneration, when confronted with difficult circumstances. As we can see this inner psychological/cognitive/epistemological/ontological core is a complex thing and it is quite simply not something that can be grown through an educational experience without drawing on the whole of a person’s life experiences.

While many aspects of the development of an individual to perform complex work in the non-routine cognitively demanding field can be developed within the higher education context, it is clear that to become this sort of being/interbeing requires us to develop ourselves through the much richer experiences that our whole life affords with its diversity of contexts, opportunities and challenges. This is why I argue for a lifewide approach in higher education.

What general conclusions might we draw from this narrative?

Employability has been, and will continue to be, a major policy driver and discourse in UK Higher Education for extending student learning and development beyond the primary concerns of disciplines. We might also include here policies for personal development planning and enterprise.

The fact that we are grappling with trying to make sense of human development beyond the academic gives me hope for the future of our education system. Human development involves so much more than what education alone can provide. The optimistic view is that we have an environment in UK HE in which concerns for the development of learners beyond the academic, is well developed so there is potential to integrate broader notions of learner development through the lifewide and ecological narrative I am offering but there have to be good reasons for higher education to do this.

Concerns for the sustainability of our planet are creating a tipping point for educational discourses and the demand for learner development to support a more sustainable regenerative future will eventually galvanize education systems all over the world to engage deeply with this formidable challenge. Given that employability is itself a sustainable regenerative concept there are synergies between some of the employability models for learner development and development that is explicitly intended for sustainability. It's in this broader developmental context where the lifewide learning & ecological narrative might be helpful to provide an ecological understanding of learning and practice.

I argue, along with many others, that to achieve a sustainable future people need to see and understand the deep connections, relationships and interdependencies they have with the world around them. To help achieve this I am proposing that education needs to encourage learners to develop an appreciation of how learning, practice and creativity are ecological phenomenon brought about through their relationships and interactions with their environment.

The key to survival and flourishing in any non-routine cognitive domain of work, to which many HE learners aspire, is being able to create and sustain an ecologies for practice within which learning is embedded. If my argument is accepted then the pedagogical challenge is to design educational programmes that enable learners to gain the experience of creating and implementing their own ecologies for learning, conscious of what they are doing because of their own awareness of the ecological nature of learning and practice.

Our journey to the future of increasing complexity is an ontological journey. It makes sense to create educational designs that address the ontological dimension of learning, being and becoming. We need to embrace the whole of a learner's life when we are considering their development as a person for their future world. We need an educational approach that values their attempts to construct their identity as a learner in all its manifestations and to encourage and value development of qualities like the willingness to get involved, to try to do and achieve even if not successful, to persist and demonstrate resilience in the face of setbacks. These are the qualities of a strong inner core and they

are developed across the whole of a learner's life and that leads me to conclude that we need to adopt a lifewide concept of learning, development, and achievement in education.

We should also be mindful that the learners of today may well be journeying towards a future where there is much less work. By encouraging learners to see the affordances in the whole of their life for contribution and fulfillment, and valuing their contributions and achievements through a lifewide curriculum, we will be helping them prepare for such a future.

Ghandi argued ontologically that we have to be [become] the change we want to see in the world. But there is another ontological dimension to this challenge, we are also often required to be the changes the world requires of us. And that is the challenge that confronts us as a human being and it is also at the heart of the idea of an ontological curriculum for higher education.

I hope that some of these ideas are useful and my hope is that you will be bold and seize the chance to incorporate the lifewide ecological narrative into your thinking and practice.

Free resources relating to lifewide learning and education & ecologies for practice and learning can be downloaded from these websites.



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